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Investigation of Pulmonary Function Indices and Prevalence of Respiratory Symptoms Among Bakers City of Qazvin in 2016 Year

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Background: The success rate of low-dose IVIG in the treatment of recurrent miscarriage was Background: The people employed in related-flour industries, particularly bakers are in exposure to high risk of occupational asthma. Occupational asthma is caused by immunological sensitization to allergens existing in the flour. Therefore, the aim of this study was to determine the effects of exposure to flour dust on symptoms and pulmonary function indices of bakers in the city of Qazvin.

Method: This case-control study was conducted in bakeries Qazvin in fall (2016). The study included 240 subjects (120 baker and 120 supermarket operators). Assessment of pulmonary function and respiratory symptoms of people were done using a spirometer MIR LAB III model and ATS standard questionnaire respectively. Spirometric indices FEV1, FVC, FEF25-75, PEF, FEF75, FEF25 and FEF50 were measured.

Results: The mean age and occupational history work in groups of case and control (37.57 ± 10.57, 17.54 ± 10.51 years) and (36.9 ± 10.9, 12.45 ± 9.3 years) respectively. Compared with spirometric indices between two groups case and control were observed significant difference between FVC, FEV1, FEF50 and PEF ($P < 0.05$). In addition, the prevalence of respiratory symptoms such as regular cough, chest tightness and shortness of breath in people of case was more than control.

Conclusion: The present study confirms the negative impact of flour dust on the main indicators of pulmonary function. Therefore, provide the necessary training to the bakery for the reduction level of environmental dust including use a vacuum cleaner, engineering controls and use of suitable masks in order to reduce exposure bakers is essential.

Key words: Flour, Pulmonary function indices, Spirometry, Baker.

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